

# **BAOJIE**

## **VHF/UHF FM TRANSCEIVER BJ-UV55**

# **SERVICE MANUAL**

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# INTRODUCTION

## The range of this manual

This manual provides technical information necessary for service the BJ-UV55. Service this equipment requires expertise in handling surface-mount chip components. Attempts by non-qualified persons to service this equipment may result in permanent damage not covered by the warranty, and may be illegal in some countries.

While we believe the technical information in this manual to be correct, BAOJIE assumes no liability for damage that may occur caused by typographical or other errors that may be present. Your cooperation in pointing out any inconsistencies in the technical information would be appreciated.

BAOJIE company reserves the right for explain. All the above specifications and product design subject to change by without our notice.

## Personal Safety

Please pay attention to the following notes for your personal safety:

- ◆ Don't transmit before make sure all the plug connect correctly with the relative port.
- ◆ Don't operating this transceiver(turn off the power) near the electric detonator or in the flammable gas environment.
- ◆ Please turn off the radio in the place which marked(E.g: Hospital and Health care establishments....) in order to avoid the problem caused by electromagnetic interference or battery compatibility.

# CIRCUIT DESCRIPTION

## 一、 Receiver Signal Path

### 1、 RF signal

#### ■ UHF band signal

UHF signal is passed through a high-pass filter network and a low-pass filter network to the antenna switch diodes D303、 D304, then passed through BPF tuned filter circuit (D306, D308)

to UHF band RF amplifier T300. The amplified UHF signal is passed through another BPF tuned filter circuit(D309, D310) , then is passed through the first mixer T301. Meanwhile, the UHF local signal from the UHF-VCO(T402) is delivered to first mixer T301, yielding the UHF band first IF frequency 38.55MHz .

#### ■ VHF band signal

VHF signal is passed through a low-pass filter network and a high-pass filter network to the antenna switch diodes(D314, D315 & D317). Then passed through another low-pass filter network to the VHF band RF amplifier T303, yielding the VHF band first IF frequency 38.55MHz.

### 2、 IF and AF Signals

UHF band and VHF band first IF frequency 38.55MHz is delivered to the crystal filter FL500, F501 through switch(D301, D313) which strips away unwanted mixer clutter, then is passed through IF amplifier T501 to the IF IC U500. Meanwhile, output of 13.0MHz TCXO crystal CR 400 is multiplied threefold by T502 to output the 39MHz second local signal, then delivered to the IF IC U500. Within the IF IC U500, the 39MHz second local signal is mixed with the 38.55MHz first local signal to produce the second IF frequency 450KHz.

The 450KHz second IF is passed through the filter switch D501 to the ceramic filter FL 503 which strips away all but the desired signal, then it passes through the IF amplifier within U500 to the ceramic discriminator CR500, which removes any amplitude variations in the 450KHz IF signal before detection of speech.

The demodulated audio signal is passed through audio volume potentiometer VR1 to adjust the audio sensitivity and then is delivered to the U900 to be amplified and applied to the loudspeaker.

### 3、 Squelch Control

When no carrier is being received, noise at the output of the detector stage in U500 is amplified and band-pass filtered by the noise amp section of U500. The resulting DC voltage is delivered to CPU(U801), which compares the squelch threshold level to that which set by Menu.

While no carrier is being received, CPU will output a controllable level, to disable the audio output from the speaker through T901.

## 二、 Transmitter Signal Path

### 1、 AF Signal

The speech signal from the microphone is passed through the MIC jack J1 to the AF amplifier U600. The amplified speech signal is delivered to the limiting amplifier T601, T602 to prevent over-modulation, then is delivered to a low-pass filter network.

#### ■ UHF band

The adjusted speech signal is passed through varactor diodes D402 which frequency modulate the transmitting VCO, made up of UHF-VCO T407.

The modulated transmit signal is passed through buffer amplifiers T402、T400 and diode switches D201、D1011 to the pre-drive amplifier T1002.

The amplified transmit signal from T1002 is passed through diode switch D1013 and the driver amplifier T1003 to the diode switch D1014, then finally amplified by power amplifier TH1005, providing up to 35 Watts of power output. These three stages of the power amplifier are controlled by the APC circuit.

The 35 Watts RF signal is passed through a high-pass filter network to the antenna switch D1005, D1004 and D1003, then passed through a low-pass filter network and another high-pass filter network to the ANT jack.

#### ■ VHF band

The adjusted speech signal is passed through varactor D407, which frequency modulate the transmitting VCO, made up of VHF-VCO T408.

The modulated transmit signal is passed through buffer amplifiers T403, T404 and diode switches D200, D1010 to the pre-drive amplifier T1002.

The amplified transmit signal from T10002 is passed through the diode switch D11012, D11013 and drive amplifier T1003 to the diode switch D1017, then finally amplified by power amplifier TH1005, yielding the output power which is higher than 50W. These three stages of the power amplifier are controlled by the APC circuit.

50Watts RF signal is passed through a low-pass network to antenna switch D1001 and D1002, then is passed through a high-pass network and another low-pass network to antenna jack.

## 2、APC(Automatic Power Control) Circuit

#### ■ UHF band

A portion of the power amplifier output is rectified by D1008 and D1009, then delivered to APC U1000. As a DC voltage which is proportional to the output level of the power amplifier.

At U1000, the rectified DC voltage from the power amplifier is compared to the reference voltage from the main CPU U801 to produce a control voltage which regulates the supply voltage to the pre-amplifier T1002, drive amplifier T1003 and power amplifier TH1005, so as to maintain stable output power under varying antenna loading conditions.

#### ■ VHF band

A portion of the power amplifier output is rectified by D1006, D1007, then delivery to APC U1000. As a DC voltage which is proportional to the output level of the power amplifier.

At U1000, the rectified DC voltage from the power amplifier is compared to the reference voltage from the main CPU U801 to produce a control voltage, which regulates the supply voltage to the pre-amplifier T1002、drive-amplifier T1003 and power amplifier TH1005, so as to maintain stable output power under varying antenna loading conditions.

## 3、PTT(Push to Talk) Circuit

#### ■ UHF band

When the "PTT" switch is pressed, then sends the "PTT" command to CPU U801.

When the "PTT" command is received, then CPU U801 output control signal which activates the TX switch that made up by T712 and T702.

When the TX switch of T712、 T702 is activated, it controls the antenna switch diodes D1003、 D1004 and D1005, diodes switch D201、 D1011 and APC switches T1004、 T1000, which activate the UHF transmit circuit.

#### ■ VHF band

When the "PTT" switch is pressed, then sends the "PTT" command to CPU U801.

When the "PTT" command is received, then CPU U801 output control signal which activates the TX switch that made up by T712 and T702.

When the TX switch of T712、 T702 is activated, it controls the antenna switch diodes D1001、 D1002, diodes switch D200、 D1010 and APC switches T1004、 T1000, which activate the VHF transmit circuit.

### 三、 PLL Circuit

A portion of the output from UHF-VCO T407 is passed through buffer amplifier T401 to the programmable divider of the PLL IC U400, where it divided according to the frequency dividing data from the main CPU U801. It is then sent to the phase comparator.

A portion of the output from VHF-VCO T408 is passed through buffer amplifier T405 to the programmable divider of the PLL IC U400, where it divided according to the frequency dividing data from the main CPU U801. It is then sent to the phase comparator.

The phase comparator of U400 compares the phase between the frequency-divided oscillation frequency of the VCO circuit and the comparative frequency, and its output is a pulse corresponding to the phase difference. This is integrated by the loop filter into a control voltage(VCVO) to control the oscillation frequency of the VCOs.

## PARTS LIST

Display Unit:

Designators	Name	Comment	Footprint
C1	Capacitor	100P	0603
C10	Capacitor	104P	0603
C13	Capacitor	106P	0805
C14	Capacitor	104P	0603
C2	Capacitor	100P	0603
C3	Capacitor	100P	0603
C311	Capacitor	220P	0603
C312	Capacitor	220P	0603
C4	Capacitor	100P	0603
C5	Capacitor	100P	0603
C6	Capacitor	100P	0603
C7	Capacitor	100P	0603
C8	Capacitor	220P	0603
C9	Capacitor	100P	0603
D2	LED	White	
D3	LED	White	
D4	LED	White	
D5	LED	White	
D6	LED	White	
D7	LED	White	
D8	LED	White	
J1	Modular JACK		
JP1	PIN ASSY	24P	
JP2	LCD BACKLIT		
L1	Inductor	CH220NH	0603
LCD1	LCD		
R10		NC	0805
R11	Resistor	10R	0603
R12	Resistor	100R	0805
R13	Resistor	82K	0603
R14	Resistor	1K8	0603
R15	Resistor	2K2	0603
R16	Resistor	2K2	0603
R17	Resistor	2K2	0603
R18	Resistor	2K2	0603
R19	Resistor	1K2	0603
R2	Resistor	100R	0603
R20	Resistor	560R	1206

R3	Resistor	100R	0805
R4	Resistor	100R	0805
R7	Resistor	100R	0603
R8	Resistor	100R	0805
R9	Resistor	100R	0805
RP1	Resistor	4K7	
T1		NC	SOT-523F
T2	Transistor	DTC114EE	SOT-523F
T5	Transistor	DTC114EE	SOT-523F
U1	Transistor	HD44780	
U702	IC	78L05	SOT-89-U
VR1	Variable Resistor	10K	

## TX-RX Unit:

Designators	Name	Comment	Footprint
C1000	Capacitor	15P/500V	0805
C1001	Capacitor	15P/500V	0805
C1002	Capacitor	15P	0603
C1003	Capacitor	30P	0603
C1004	Capacitor	4P	0603
C1005	Capacitor	4P	0603
C1006	Capacitor	4P	0603
C1007	Capacitor	4P	0603
C1008	Capacitor	4P	0402
C1009	Capacitor	4P	0402
C1010	Capacitor	0P5	0603
C1011	Capacitor	0P5	0603
C1012	Capacitor	0P5	0603
C1013	Capacitor	0P5	0603
C1014	Capacitor	0P5	0603
C1015	Capacitor	2P	0603
C1016	Capacitor	2P	0603
C1017	Capacitor	220P/500V	0805
C1018	Capacitor	220P/500V	0805
C1019	Capacitor	220P/500V	0805
C1020	Capacitor	220P/500V	0805
C1021	Capacitor	3P	0603
C1022	Capacitor	3P	0603
C1023	Capacitor	3P	0603
C1024	Capacitor	102P	0402
C1025	Capacitor	102P	0402
C1026	Capacitor	102P	0402

C1027	Capacitor	102P	0402
C1028	Capacitor	102P	0402
C1029	Capacitor	102P	0402
C1030	Capacitor	102P	0402
C1031	Capacitor	102P	0402
C1032	Capacitor	102P	0402
C1033	Capacitor	102P	0603
C1034	Capacitor	102P	0603
C1035	Capacitor	102P	0603
C1036	Capacitor	102P	0402
C1037	Capacitor	102P	0402
C1038	Capacitor	102P	0603
C1039	Capacitor	102P	0603
C1040	Capacitor	102P	0603
C1041	Capacitor	102P	0402
C1042	Capacitor	102P	0603
C1043	Capacitor	102P	0603
C1044	Capacitor	102P	0603
C1045	Capacitor	102P	0402
C1046	Capacitor	102P	0805
C1047	Capacitor	18P/500V	0805
C1048	Capacitor	22P	0603
C1049	Capacitor	18P	0603
C1050	Capacitor	1P5	0603
C1051	Capacitor	103P	0402
C1052	Capacitor	103P	0603
C1053	Capacitor	27P/500V	0805
C1054	Capacitor	27P/500V	0805
C1055	Capacitor	27P/500V	0805
C1056	Capacitor	22P/500V	0805
C1057	Capacitor	22P/500V	0805
C1058	Capacitor	22P/500V	0805
C1059	Capacitor	18P	0603
C1060	Capacitor	7P/500V	0805
C1061	Capacitor	7P	0603
C1062	Capacitor	6P	0603
C1063	Capacitor	6P	0402
C1064		NC	0603
C1065		NC	0603
C1066		NC	0603
C1067		NC	0805
C1068		NC	0603
C1069		NC	0603



C1070		NC	0402
C1071		NC	0603
C1072	Capacitor	5P	0402
C1073	Capacitor	5P/500V	0805
C1074	Capacitor	100P/500V	0805
C1075	Capacitor	100P/500V	0805
C1076	Capacitor	100P	0603
C1077	Capacitor	100P	0603
C1078	Capacitor	104P	0603
C1079	Capacitor	100P	0603
C1080	Capacitor	12P/2KV	1210
C1081	Capacitor	56P/2KV	1210
C1082	Capacitor	56P/2KV	1210
C1083	Capacitor	102P	0603
C1084	Capacitor	222P	0603
C1085	Capacitor	222P	0603
C1086	Capacitor	104P	0603
C1087	Capacitor	104P	0603
C1088	Capacitor	104P	0603
C1089	Capacitor	104P	0603
C1090	Capacitor	104P	0603
C1091	Capacitor	104P	0603
C1092	Capacitor	104P	0603
C1093	Capacitor	100P	0603
C1094	Capacitor	18P	0603
C1095	Capacitor	68P	0402
C1096	Capacitor	100P	0402
C1097		NC	0402
C1098	Capacitor	33P	0603
C1099	Capacitor	56P	0603
C1100	Capacitor	22P	0603
C1101	Capacitor	68P	0603
C1102	Capacitor	18P	0603
C1103	Capacitor	150P	0603
C1104	Capacitor	39P	1210
C1105	Capacitor	22P	1210
C1106	Capacitor	33P/2KV	1210
C1107	Capacitor	27P/2KV	1210
C1108	Capacitor	473P	0603
C1109	Capacitor	473P	0805
C1110	Capacitor	33P	1210
C1111	Capacitor	102P	0402
C1112	Capacitor	102P	0402

C1113	Capacitor	102P	0603
C1114	Capacitor	102P	0603
C1115		NC	0603
C1116	Capacitor	56P	0402
C1117	Capacitor	33P	0402
C1118	Capacitor	36P	0603
C1119	Capacitor	22P	0603
C1120	Capacitor	10P	0603
C1121	Capacitor	10P	0603
C203	Capacitor	102P	0603
C204	Capacitor	102P	0603
C205	Capacitor	102P	0603
C208	Capacitor	102P	0603
C209	Capacitor	102P	0603
C211	Capacitor	470P	0603
C214	Capacitor	470P	0603
C215	Capacitor	470P	0603
C216	Capacitor	103P	0603
C217	Capacitor	103P	0603
C218	Capacitor	6P	0603
C221	Capacitor	104P	0603
C222	Capacitor	104P	0603
C223	Capacitor	7P	0603
C225		NC	0603
C226		NC	0603
C227		NC	0603
C228		NC	0603
C229	Capacitor	10P	0603
C230	Capacitor	10P	0603
C231	Capacitor	10P	0603
C234	Capacitor	33P	0603
C236	Capacitor	18P	0603
C238	Capacitor	3P	0603
C239	Capacitor	5P	0603
C300	Capacitor	12P	0402
C301	Capacitor	12P	0402
C302	Capacitor	102P	0402
C303	Capacitor	102P	0402
C304	Capacitor	102P	0603
C305	Capacitor	102P	0603
C306	Capacitor	102P	0603
C307	Capacitor	102P	0603
C308	Capacitor	102P	0402

C309	Capacitor	102P	0402
C310	Capacitor	102P	0402
C311	Capacitor	102P	0402
C312	Capacitor	102P	0402
C313	Capacitor	102P	0402
C314	Capacitor	4P	0402
C315	Capacitor	4P	0402
C316	Capacitor	102P	0603
C317	Capacitor	470P	0402
C318	Capacitor	470P	0402
C319	Capacitor	470P	0402
C320	Capacitor	470P	0402
C321	Capacitor	470P	0402
C322	Capacitor	470P	0402
C323	Capacitor	470P	0603
C324	Capacitor	470P	0603
C325	Capacitor	470P	0603
C326	Capacitor	470P	0603
C327	Capacitor	470P	0603
C328	Capacitor	470P	0402
C329	Capacitor	470P	0402
C330	Capacitor	470P	0402
C331	Capacitor	103P	0402
C332	Capacitor	103P	0402
C333	Capacitor	103P	0603
C334	Capacitor	103P	0402
C335	Capacitor	104P	0402
C336	Capacitor	104P	0402
C337	Capacitor	104P	0402
C338	Capacitor	104P	0402
C339	Capacitor	104P	0402
C340	Capacitor	7P	0402
C341	Capacitor	7P	0603
C342		NC	0402
C343		NC	0402
C344		NC	0402
C345		NC	0603
C346		NC	0603
C347	Capacitor	4P	0402
C348		NC	0402
C349		NC	0402
C350	Capacitor	8P	0402
C351	Capacitor	33P	0402

C352	Capacitor	100P	0402
C353	Capacitor	3P	0402
C354	Capacitor	3P	0402
C355	Capacitor	3P	0402
C356	Capacitor	5P	0603
C357	Capacitor	5P	0402
C358	Capacitor	5P	0603
C359	Capacitor	18P	0402
C360	Capacitor	18P	0402
C361	Capacitor	18P	0402
C362	Capacitor	22P	0402
C363	Resistor	0R	0402
C364	Resistor	0R	0603
C365	Resistor	0R	0603
C366	Resistor	0R	0402
C367	Capacitor	4P	0402
C368	Capacitor	2P	0603
C369	Capacitor	8P	0402
C370	Capacitor	1P5	0402
C371	Capacitor	0R	0402
C372	Capacitor	12P	0402
C373	Capacitor	15P	0603
C374	Capacitor	10P	0402
C375		NC	0603
C376		NC	0603
C377	Capacitor	24P	0402
C378		NC	0603
C400	Capacitor	105P	0805
C401	Capacitor	6P	0402
C402	Capacitor	12P	0402
C403	Capacitor	12P	0402
C404	Capacitor	12P	0402
C405	Capacitor	102P	0402
C406	Capacitor	102P	0402
C407	Capacitor	102P	0402
C408	Capacitor	102P	0402
C409	Capacitor	102P	0402
C410	Capacitor	102P	0402
C411	Capacitor	102P	0402
C412	Capacitor	102P	0402
C413	Capacitor	102P	0402
C414	Capacitor	102P	0402
C415	Capacitor	4P	0402

C416	Capacitor	470P	0402
C417	Capacitor	470P	0402
C418	Capacitor	470P	0402
C419	Capacitor	470P	0402
C420	Capacitor	470P	0402
C421	Capacitor	470P	0402
C422	Capacitor	470P	0402
C423	Capacitor	470P	0402
C424	Capacitor	103P	0402
C425	Capacitor	103P	0402
C426	Capacitor	103P	0402
C427	Capacitor	103P	0402
C428	Capacitor	103P	0402
C429	Capacitor	103P	0402
C430	Capacitor	103P	0603
C431	Capacitor	103P	0402
C432	Capacitor	6P	0402
C433	Capacitor	6P	0402
C434	Capacitor	0P5	0402
C435	Capacitor	0P5	0402
C436	Capacitor	0P5	0402
C437	Capacitor	1P	0402
C438	Capacitor	104P	0402
C439	Capacitor	104P	0402
C440	Capacitor	104P	0402
C441	Capacitor	104P	0603
C442	Capacitor	104P	0402
C443	Capacitor	7P	0402
C444	Capacitor	7P	0402
C445	Capacitor	7P	0402
C446	Capacitor	0P5	0402
C447	Capacitor	104P	0402
C448	Capacitor	82P	0603
C449		NC	0402
C450	Capacitor	105P	0805
C451		NC	0402
C452		NC	0402
C453		NC	0402
C454		NC	0402
C455		NC	0402
C456		NC	0402
C457		NC	0402
C458	Capacitor	7P	0402

C459	Capacitor	10P	0402
C460	Capacitor	100P	0603
C461	Capacitor	100P	0603
C462	Capacitor	100P	0402
C463	Capacitor	100P	0402
C464	Capacitor	100P	0402
C465	Capacitor	100P	0402
C466	Capacitor	100P	0402
C467	Capacitor	100P	0402
C468	Capacitor	12P	0603
C469	Capacitor	18P	0402
C470	Capacitor	106P	0805
C471	Capacitor	102P	0402
C472	Capacitor	475P	0805
C473	Capacitor	106P	0805
C474	Capacitor	103P	0603
C500	Capacitor	102P	0603
C501		NC	0603
C502		NC	0603
C503	Capacitor	102P	0603
C504	Capacitor	102P	0603
C505	Capacitor	102P	0603
C507	Capacitor	470P	0603
C508	Capacitor	103P	0603
C509	Capacitor	103P	0603
C510	Capacitor	104P	0603
C511	Capacitor	104P	0603
C512	Capacitor	104P	0603
C513		NC	0603
C514		NC	0603
C516	Capacitor	100P	0603
C517	Capacitor	220P	0603
C518	Capacitor	220P	0603
C519	Capacitor	100P	0603
C520	Capacitor	100P	0603
C521	Capacitor	8P	0603
C522		NC	0603
C523		NC	0603
C525	Capacitor	106P	3216
C526	Capacitor	224P	0603
C527		NC	0603
C528	Capacitor	82P	0603
C529	Capacitor	470P	0603

C530	Capacitor	102P	0603
C531	Capacitor	104P	0603
C532	Capacitor	104P	0603
C533	Capacitor	102P	0603
C534	Capacitor	100P	0603
C535		NC	0603
C536	Capacitor	104P	0603
C537	Capacitor	82P	0603
C600	Capacitor	105P	0603
C601	Capacitor	332P	0603
C602	Capacitor	102P	0603
C603	Capacitor	102P	0603
C604	Capacitor	103P	0603
C605	Capacitor	104P	0603
C606	Capacitor	104P	0603
C607	Capacitor	104P	0603
C608	Capacitor	104P	0603
C609		NC	0603
C610	Capacitor	225P	0805
C611		NC	0603
C612	Capacitor	820P	0603
C613	Capacitor	680P	0603
C614	Capacitor	332P	0603
C615	Capacitor	473P	0603
C616	Capacitor	473P	0603
C617	Capacitor	473P	0603
C618	Capacitor	100P	0603
C619	Capacitor	223P	0603
C620	Capacitor	223P	0603
C621	Capacitor	106P	0805
C622	Capacitor	222P	0603
C623	Capacitor	475P	0805
C624	Capacitor	475P	0805
C625	Capacitor	103P	0402
C700	Capacitor	102P	0603
C701	Capacitor	102P	0402
C702	Capacitor	102P	0603
C703	Capacitor	104P	0603
C704	Capacitor	103P	0603
C705	Capacitor	103P	0603
C706	Capacitor	104P	0402
C707	Capacitor	103P	0603
C708	Capacitor	100P	0603

C710	Capacitor	104P	0402
C711	Capacitor	104P	0402
C712	Capacitor	102P	0402
C713	Capacitor	104P	0603
C714	Capacitor	105P	0603
C715	Capacitor	100P	0402
C716	Capacitor	106P	0805
C718	Capacitor	106P	0805
C719	Capacitor	470P	0603
C720	Capacitor	104P	0603
C721	Capacitor	104P	0603
C722	Capacitor	102P	0402
C723	Capacitor	104P	0603
C724	Capacitor	103P	0603
C725	Capacitor	106P	0805
C726	Capacitor	103P	0603
C727	Capacitor	106P	0805
C728	Capacitor	10UF	0805
C729	Capacitor	106P	0805
C730	Capacitor	106P	0805
C736	Capacitor	100P	0603
C737	Capacitor	103P	0603
C738	Capacitor	100P	0603
C745	Capacitor	220P	0603
C746	Capacitor	102P	0603
C747	Capacitor	104P	0603
C748	Capacitor	104P	0603
C750	Capacitor	103P	0603
C751	Capacitor	106P	0805
C753	Capacitor	100P	0603
C754	Capacitor	104P	0603
C755	Capacitor	104P	0603
C804	Capacitor	102P	0402
C805	Capacitor	102P	0402
C809	Capacitor	103P	0402
C810	Capacitor	103P	0402
C811	Capacitor	470P	0402
C812	Capacitor	104P	0402
C813	Capacitor	104P	0402
C814	Capacitor	104P	0402
C815	Capacitor	104P	0402
C816	Capacitor	104P	0402
C817	Capacitor	104P	0402



C818	Capacitor	104P	0402
C819	Capacitor	104P	0402
C820	Capacitor	104P	0402
C821		NC	0402
C822	Capacitor	104P	0402
C823		NC	0402
C824	Capacitor	15K	0402
C825	Capacitor	104P	0402
C826	Capacitor	104P	0402
C827	Capacitor	104P	0402
C828	Capacitor	104P	0402
C829	Capacitor	473P	0402
C830	Capacitor	104P	0402
C831	Capacitor	100P	0402
C832	Capacitor	100P	0402
C833	Capacitor	473P	0402
C834	Capacitor	103P	0402
C835	Capacitor	103P	0402
C836	Capacitor	22P	0402
C837	Capacitor	22P	0402
C838	Capacitor	470P	0603
C839	Capacitor	103P	0402
C840	Capacitor	103P	0402
C841	Capacitor	225P	0805
C842	Capacitor	473P	0402
C843	Capacitor	100P	0402
C844		NC	0402
C845	Capacitor	106P	0805
C846	Capacitor	104P	0402
C847	Capacitor	22P	0402
C848	Capacitor	22P	0402
C849	Resistor	10K	0402
C850	Capacitor	683P	0402
C851	Capacitor	104P	0402
C852	Capacitor	104P	0402
C853		NC	0402
C854		NC	0402
C855		NC	0402
C856	Capacitor	104P	0402
C857	Capacitor	104P	0402
C858	Capacitor	102P	0402
C859	Capacitor	102P	0402
C860	Capacitor	103P	0402

C861	Capacitor	103P	0402
C862	Capacitor	103P	0402
C863	Capacitor	103P	0402
C864	Capacitor	10P	0402
C865	Capacitor	223P	0402
C866	Capacitor	1P	0402
C867	Capacitor	47P	0402
C868	Capacitor	15P	0402
C869	Capacitor	15P	0402
C870	Capacitor	475P	0603
C871	Resistor	0R	0402
C900	Capacitor	102P	0603
C901	Capacitor	102P	0603
C902	Capacitor	104P	0603
C903	Capacitor	103P	0603
C904	Capacitor	104P	0603
C905	Capacitor	225P	0805
C906	Capacitor	102P	0603
C907	Capacitor	105P	0603
CR400	TCXO	13.0MHz	
CR500		50C24	
CR501		NC	
CR800	Crystal	32.768KHz	
CR810		NC	
D1000		NC	2012
D1001	Diode	XB15A709	1210
D1002	Diode	XB15A709	1210
D1003	Diode	XB15A709	1210
D1004	Diode	XB15A709	1210
D1005	Diode	XB15A709	1210
D1006	Diode	HSC277	0603
D1007	Diode	HSC277	0603
D1008	Diode	HSC277	0603
D1009	Diode	HSC277	0603
D1010	Diode	HSC277	0603
D1011	Diode	HSC277	0603
D1012	Diode	HSC277	0603
D1013	Diode	HSC277	0603
D1014	Diode	HSC277	0603
D1015	Diode	DAN222	SOT-416
D1016	Diode	DAN222	SOT-416
D1017	Diode	BA592	0805
D1018	Diode	HSC277	0603

D1019	Diode	HSC277	0603
D1020		NC	0805
D200	Diode	HSC277	0603
D201	Diode	HSC277	0603
D300	Diode	HSC277	0603
D301	Diode	HSC277	0603
D302	Diode	HSC277	0603
D303	Diode	BA592	0805
D304	Diode	BA592	0805
D305		NC	0603
D306	Diode	HVC350(B0)	0603
D307	Capacitor	7P	0603
D308	Diode	HVC350(B0)	0603
D309	Diode	HVC350(B0)	0603
D310	Diode	HVC350(B0)	0603
D311	Diode	HVC350(B0)	0603
D312	Diode	HVC350(B0)	0603
D313	Diode	HSC277	0603
D314	Diode	BA592	0805
D315	Diode	BA592	0805
D316		NC	0603
D317		NC	0603
D400	Diode	1N4148	0603
D401	Diode	1N4148	0603
D402	Diode	1SV270(TF)	0603
D403	Diode	HVC376(B9)	0603
D404	Diode	HVC376(B9)	0603
D405	Diode	HVC376(B9)	0603
D406	Diode	HVC376(B9)	0603
D407	Diode	1SV270(TF)	0603
D408	Diode	HVC376(B9)	0603
D409	Diode	HVC376(B9)	0603
D410	Diode	HVC376(B9)	0603
D411	Diode	HVC376(B9)	0603
D500	Diode	DAN222	SOT-416
D501	Diode	DAN222	SOT-416
D600	Diode	1SS372(N9)	SOT-416
D708	Diode	MR2535L	
D711	Diode	1N4148	0603
D712	Diode	1N4148	0603
D800		NC	D-LED
D801		NC	D-LED
E1000	Capacitor	10UF	3216

E1001	Capacitor	10UF	3216
E1002	Capacitor	106P	0805
E1003	Capacitor	10UF	0805
E1004	Capacitor	10UF	3216
E1005	Capacitor	10UF	3216
E400	Capacitor	4U7F(T.Y.)	3216
E401	Capacitor	10UF(T.Y.)	3216
E402	Capacitor	104P(T.Y.)	3216
E403	Capacitor	104P(T.Y.)	3216
E404	Capacitor	104P(T.Y.)	3216
E405	Capacitor	225P(T.Y.)	3216
E406	Capacitor	106P(T.Y.)	3216
E407	Capacitor	224P(T.Y.)	3216
E700	Capacitor	22UF/16V	3528
E701	Capacitor	10UF	3528
E702	Capacitor	10UF	3528
E703	Capacitor	106P	0805
E704	Capacitor	106P	0805
E705	E.Capacitor	330UF/25V	CM10
E706	E.Capacitor	100UF/25V	CM6.5
E707	E.Capacitor	100UF/25V	CM6.5
E710	Capacitor	10UF	3216
E900	Capacitor	4U7F(T.Y.)	3528
E901	Capacitor	47UF/25V	CM6.5
E902	E.Capacitor	330UF/25V	CM10
F700	Ferrite	101T	1206
FL500	MCF	38.55MHz	
FL501	MCF	38.55MHz	
FL502	Ceramic Filter	M50GW	
FL503	Ceramic Filter	M50FWQ	
JK900		3.5D PHONE JACK	
JP300	PIN ASSY	24Pin	
JP900	PIN ASSY	2Pin	
L1000	Air-Core Coil	AL1.0*3.5*3.5TR	
L1001	Air-Core Coil	AL1.0*3.5*3.5TR	
L1002	Air-Core Coil	AL1.0*3.5*3.5TR	
L1003	Air-Core Coil	AL1.0*3.5*3.5TR	
L1004	Air-Core Coil	EL0.95*2.2*3TL	
L1005	Inductor	CM470NH	0805
L1006	Inductor	CM470NH	0805
L1007	Air-Core Coil	EL0.95*2.2*3TL	
L1008	Air-Core Coil	EL1.0*2.2*4TL	
L1009	Air-Core Coil	EL1.0*2.2*4TL	

L1010	Inductor	CH15NH	0603
L1011	Air-Core Coil	EL0.5*3.0*6TL	
L1012	Air-Core Coil	EL0.5*1.9*3TL	
L1013	Air-Core Coil	EL1.0*2.2*3TL	
L1014	Air-Core Coil	EL0.4*3.0*11TL	
L1015	Air-Core Coil	EL0.25*1.9*5TL	
L1016	Air-Core Coil	AL1.0*3.5*4.5TR	
L1017	Air-Core Coil	AL1.0*3.0*1.5TR	
L1018	Inductor	CH47NH	0603
L1019	Ferrite	101T/3A	0805
L1020	Inductor	CH8N2H	0805
L1021	Air-Core Coil	EL0.35*1.6*3TL	
L1022	Air-Core Coil	EL0.3*1.1*3TL	
L1023	Air-Core Coil	EL0.4*1.3*2TL	
L1024	Air-Core Coil	EL0.28*1.0*7TL	
L1025	FUSE	SMB403025-470	
L1026	Air-Core Coil	EL0.5*3.0*6TL	
L1027	Air-Core Coil	EL0.35*1.5*6TL	
L1028	Air-Core Coil	EL0.4*1.0*2TL	
L1029	Air-Core Coil	EL0.45*1.4*3TL	
L1030	Air-Core Coil	EL0.35*1.6*7TL	
L1031	Inductor	CI1.0UH	0805
L1032	Ferrite	101T/3A	0805
L1033	Ferrite	101T/3A	0805
L1034	Air-Core Coil	EL1.0*1.9*3TL	
L1035	FUSE	SMB403025-470	
L1036	Air-Core Coil	AL0.8*3.5*12.5TR	
L200	Inductor	CH220NH	0603
L207	Ferrite	101T	0603
L208	Inductor	CH3N9H	0603
L209	Inductor	CH120NH	0603
L211	Inductor	CH22NH	0603
L212	Inductor	CH18NH	0603
L300	Inductor	CH12NH	0603
L301	Inductor	CM6N8H	0805
L302	Inductor	CH68NH	0603
L303	Inductor	CH15NH	0603
L304	Resistor	0R	0603
L305	Resistor	0R	0603
L306	Inductor	CM4N7H	0603
L307	Inductor	CM15NH	0603
L308	Inductor	CM55NH	0603
L309	Inductor	CM82NH	0603

L310	Inductor	CM82NH	0603
L311	Inductor	CM150NH	0603
L312	Inductor	CM30NH	0603
L313	Inductor	CM30NH	0603
L314	Inductor	CH27NH	0603
L315	Inductor	CH68NH	0603
L316	Inductor	CM330NH	0805
L317	Inductor	CM330NH	0805
L318	Inductor	CM560NH	0805
L319	Inductor	CM560NH	0805
L320	Inductor	CH47NH	0603
L321	Inductor	CM27NH	0805
L322	Inductor	CM39NH	0603
L323	Resistor	0R	0603
L324	Inductor	CM39NH	0603
L325	Resistor	0R	0603
L326	Resistor	0R	0603
L327	Resistor	0R	0603
L328	Resistor	0R	0603
L400	Inductor	CH22NH	0603
L401	Inductor	CH18NH	0603
L402	Inductor	CH18NH	0603
L403	Inductor	CH100NH	0603
L404	Inductor	CH100NH	0603
L405	Ferrite	601T	0603
L406	Ferrite	601T	0603
L407	Resistor	0R	0603
L408	Inductor	CH220NH	0603
L409	Inductor	CI1R0	0603
L410	Inductor	CM18NH	0603
L411	Capacitor	2P	0603
L412	Inductor	CH220NH	0603
L413	Inductor	CM6N8H	0603
L414	Inductor	CH220NH	0603
L415	Inductor	CM220NH	0603
L416	Inductor	CM100NH	0603
L417		NC	0603
L418	Inductor	CH120NH	0603
L419	Resistor	0R	0603
L420	Inductor	CH220NH	0603
L421	Inductor	CH100NH	0603
L422	Inductor	CH100NH	0603
L423	Inductor	CI6U8H	0603

L500	Inductor	CI330NH	0603
L501	Inductor	CI330NH	0603
L502	Inductor	CI330NH	0603
L503		NC	2512
L600	Inductor	CH100NH	0805
L710		NC	1310
L800	Inductor	CH220NH	0603
L801	Inductor	CH220NH	0603
L810	Inductor	CH220NH	0603
L811	Inductor	CH330NH	0603
L812	Inductor	CH82NH	0603
L813		NC	0603
L814		NC	0603
Q410	Transistor	DTC114EE	SOT-523F
R1000	Resistor	33R	2512
R1001	Resistor	33R	2512
R1002	Resistor	10K	0402
R1003	Resistor	10K	0402
R1004	Resistor	10K	0402
R1005	Resistor	10K	0402
R1006	Resistor	10K	0402
R1007	Resistor	10K	0402
R1008	Resistor	10K	0402
R1009	Resistor	10K	0402
R1010	Resistor	33K	0402
R1011	Resistor	33K	0603
R1012	Resistor	1K	0603
R1013	Resistor	1K	0603
R1014	Resistor	1K	0402
R1015	Resistor	1K	0402
R1016	Resistor	1K	0603
R1017	Resistor	1K	0603
R1018	Resistor	1K	0603
R1019	Resistor	1K	0603
R1020	Resistor	1K	0603
R1021	Resistor	39R	2512
R1023	Resistor	18R	2010
R1024	Resistor	47R	0603
R1025	Resistor	47R	0603
R1026	Resistor	47R	0402
R1027	Resistor	47R	0603
R1028	Resistor	47R	0402
R1029	Resistor	100R	0603

R1030	Resistor	100R	0402
R1031	Resistor	100R	0402
R1032	Resistor	100R	0402
R1033	Resistor	100R	0402
R1034	Resistor	100R	0603
R1035	Resistor	100R	0603
R1036	Resistor	150R	0603
R1037	Resistor	0R	0603
R1038	Resistor	27K	0603
R1039	Resistor	470R	0603
R1040	Resistor	470R	0402
R1041	Resistor	470R	2010
R1042	Resistor	4K7	0603
R1043	Resistor	220R	0603
R1044	Resistor	220R	2010
R1045	Resistor	22K	0603
R1046	Resistor	22K	0402
R1047	Resistor	82R	0603
R1048	Resistor	82R	0603
R1049	Resistor	82R	0402
R1050	Resistor	82R	0402
R1051	Resistor	8K2	0603
R1052	Resistor	8K2	0402
R1053	Resistor	3K3	0603
R1054	Resistor	330K	0603
R1055	Resistor	470K	0603
R1056	Resistor	12K	0603
R1057	Resistor	4K7	0402
R1058	Resistor	4K7	0402
R1059	Resistor	4K7	0402
R1060	Resistor	100R	0402
R1061	Resistor	47R	0603
R1062	Resistor	820R	2010
R1063	Resistor	820R	2010
R1064	Resistor	1K	0603
R1100	Resistor	100R	0402
R200	Resistor	100R	0603
R202	Resistor	0R	0603
R206	Resistor	47R	0603
R208	Resistor	47R	0603
R209	Resistor	4K7	0603
R210	Resistor	4K7	0603
R211	Resistor	4K7	0603



R212	Resistor	1K	0603
R213	Resistor	10R	0603
R214	Resistor	10R	0603
R216	Resistor	22R	0603
R217	Resistor	22R	0603
R218	Resistor	22R	0603
R222	Resistor	10K	0603
R223	Resistor	5K6	0603
R224		NC	0603
R225		NC	0603
R226	Resistor	2K2	0603
R227	Resistor	680R	0603
R228	Resistor	680R	0603
R229	Resistor	680R	0603
R300	Resistor	100R	0402
R301	Resistor	47R	0603
R302	Resistor	0R	0402
R303	Resistor	47R	0402
R305	Resistor	47R	0402
R306	Resistor	47R	0402
R307	Resistor	47R	0603
R308	Resistor	4K7	0603
R309	Resistor	4K7	0402
R310	Resistor	4K7	0603
R311	Resistor	4K7	0402
R312	Resistor	150K	0603
R313	Resistor	120K	0402
R314	Resistor	120K	0402
R315	Resistor	120K	0402
R316	Resistor	120K	0402
R317	Resistor	100K	0402
R318	Resistor	100K	0603
R319	Resistor	100K	0402
R320		NC	0402
R321	Resistor	100K	0402
R322	Resistor	3K9	0402
R323	Resistor	3K9	0603
R324	Resistor	10K	0603
R325	Resistor	10K	0402
R326		NC	0402
R327		NC	0402
R328		NC	0402
R329	Resistor	330R	0603

R330	Resistor	330R	0402
R331	Resistor	150R	0402
R332	Resistor	180K	0603
R333	Resistor	82K	0402
R334	Resistor	82K	0402
R335	Resistor	82K	0402
R336	Resistor	1M	0402
R337	Resistor	1M	0402
R338	Resistor	1M	0402
R339	Resistor	1M	0402
R340	Resistor	1M	0402
R341	Resistor	1M	0402
R342	Resistor	2K7	0402
R343	Resistor	1K8	0402
R344	Resistor	200K	0603
R345	Resistor	330R	0603
R346	Resistor	330R	0402
R347	Resistor	10K	0603
R348	Resistor	10K	0603
R400	Resistor	100R	0402
R401	Resistor	100R	0402
R402	Resistor	100R	0402
R403	Resistor	100R	0402
R404	Resistor	100R	0402
R405	Resistor	100R	0603
R406	Resistor	0R	0402
R407	Resistor	0R	0402
R408	Resistor	0R	0402
R409	Resistor	3K3	0402
R410	Resistor	3K3	0402
R411	Resistor	3K3	0402
R412	Resistor	3K3	0402
R413	Resistor	3K3	0402
R414	Resistor	47R	0402
R415	Resistor	47R	0402
R416	Resistor	4K7	0402
R417	Resistor	4K7	0402
R418	Resistor	1K	0402
R419	Resistor	1K	0402
R420	Resistor	1K	0402
R421	Resistor	1K	0402
R422	Resistor	1K	0402
R423	Resistor	6K8	0402

R424	Resistor	6K8	0402
R425	Resistor	150K	0402
R426	Resistor	150K	0402
R427	Resistor	10R	0402
R428	Resistor	10R	0402
R429	Resistor	120K	0402
R430	Resistor	120K	0402
R431	Resistor	22R	0402
R432	Resistor	22R	0402
R433	Resistor	22R	0402
R434	Resistor	47K	0402
R435	Resistor	47K	0402
R436	Resistor	47K	0603
R437	Resistor	100K	0402
R438	Resistor	100K	0402
R439	Resistor	100K	0402
R440	Resistor	100K	0402
R441	Resistor	100K	0603
R442	Resistor	100K	0603
R443	Resistor	33K	0402
R444	Resistor	10K	0402
R445	Resistor	2K2	0402
R446	Resistor	1K8	0402
R447	Resistor	330R	0402
R448	Resistor	680R	0402
R449	Inductor	CI2U2H	0603
R450	Resistor	1K5	0402
R451	Resistor	560R	0402
R452	Resistor	560R	0402
R453	Resistor	560R	0402
R454	Resistor	560R	0402
R455	Resistor	180R	0402
R456	Resistor	10K	0402
R457	Resistor	10K	0402
R458	Resistor	39K	0402
R459	Resistor	330K	0402
R500	Resistor	100R	0603
R501	Resistor	100R	0603
R502	Resistor	100R	0603
R504	Resistor	3K3	0603
R505	Resistor	3K3	0603
R506	Resistor	4K7	0603
R508	Resistor	1K	0603

R509	Resistor	1K5	0603
R512	Resistor	18K	0603
R513	Resistor	100K	0603
R514	Resistor	180K	0603
R515	Resistor	180K	0603
R516	Resistor	2K7	0603
R517	Resistor	330R	0603
R518	Resistor	1K5	0603
R519	Resistor	680K	0603
R520	Resistor	120K	0603
R521	Resistor	2K	0603
R522	Resistor	4K7	0603
R523	Resistor	10K	0603
R524	Resistor	10K	0603
R525	Resistor	2K2	0603
R526	Resistor	22K	0603
R527	Resistor	22K	0603
R528	Resistor	10K	0603
R529	Resistor	10K	0603
R530	Resistor	2K2	0603
R600	Resistor	0R	0603
R601	Resistor	0R	0603
R602	Resistor	22K	0603
R603	Resistor	3K3	0603
R604	Resistor	4K7	0603
R605	Resistor	4K7	0603
R606	Resistor	10K	0603
R607	Resistor	33K	0603
R608		NC	0603
R609	Resistor	6K8	0603
R610	Resistor	100K	0603
R611	Resistor	22K	0603
R612	Resistor	51K	0603
R613	Resistor	33K	0603
R614	Resistor	3K9	0603
R615	Resistor	10K	0603
R616	Resistor	10K	0603
R617	Resistor	1M8	0603
R618	Resistor	1M8	0603
R619	Resistor	33K	0603
R620	Resistor	33K	0603
R621	Resistor	1K5	0603
R622	Resistor	680K	0603

R623	Resistor	30K	0603
R624	Resistor	2K2	0603
R625	Resistor	18K	0603
R626	Resistor	330R	0603
R627	Resistor	1K	0402
R628	Resistor	47K	0402
R700	Resistor	47K	0603
R701	Resistor	47K	0603
R702	Resistor	2K2	0603
R703	Resistor	1K	0603
R710	Resistor	47K	0402
R711	Resistor	4K7	0402
R712	Resistor	47K	0402
R713	Resistor	47K	0603
R714	Resistor	47K	0603
R715	Resistor	2K2	0603
R716	Resistor	2K2	0603
R718	Resistor	1K	0603
R719	Resistor	1K	0402
R720	Resistor	47K	0402
R721	Resistor	1K	0402
R722	Resistor	47K	0402
R723	Resistor	47K	0402
R724	Resistor	47K	0402
R725		NC	0603
R726	Resistor	47K	0603
R727	Resistor	4K7	0603
R800	Resistor	0R	0402
R801	Resistor	100R	0402
R803	Resistor	47K	0402
R807	Resistor	47K	0402
R808	Resistor	47K	0402
R810	Resistor	47K	0402
R811		NC	0402
R812		NC	0402
R813	Resistor	47K	0402
R814	Resistor	100K	0402
R815	Resistor	100K	0402
R816		NC	0402
R817	Resistor	3K9	0402
R818	Resistor	3K9	0402
R819	Resistor	47K	0402
R820	Resistor	4K7	0402

R821	Resistor	100K	0402
R822	Resistor	4K7	0402
R823	Resistor	22K	0402
R824	Resistor	47K	0402
R825	Resistor	4K7	0402
R826	Resistor	4K7	0402
R827	Resistor	1K	0402
R828	Resistor	4K7	0402
R829	Resistor	4K7	0402
R830	Resistor	3K3	0402
R831		NC	0402
R832	Resistor	100R	0402
R833	Resistor	82K	0402
R834	Resistor	56K	0402
R835	Resistor	0R	0402
R836	Resistor	22K	0402
R837	Resistor	30K	0402
R838		NC	0402
R839	Resistor	180K	0402
R840	Resistor	39K	0402
R841	Resistor	390K	0402
R842	Resistor	47K	0402
R843	Resistor	47K	0402
R844	Resistor	47K	0402
R845	Resistor	82K	0402
R846	Thermistor	100K	0603
R847	Resistor	3K3	0402
R848	Resistor	47K	0402
R849	Resistor	47K	0402
R850	Resistor	47K	0402
R851	Resistor	47K	0402
R852	Resistor	47K	0402
R853	Resistor	2K2	0402
R854	Resistor	2K2	0402
R855	Resistor	15K	0402
R856	Resistor	334P	0402
R857		NC	0402
R858	Resistor	150K	0402
R859	Resistor	47K	0402
R860	Resistor	47K	0402
R861	Resistor	47K	0402
R862	Resistor	47K	0402
R863	Resistor	47K	0402

R864	Resistor	47K	0402
R865	Resistor	47K	0402
R866	Resistor	47K	0402
R867	Resistor	47K	0402
R868	Resistor	47K	0402
R869	Resistor	47K	0402
R870	Resistor	47K	0402
R871	Resistor	47K	0402
R872	Resistor	47K	0402
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R880	Resistor	10K	0402
R881	Resistor	10K	0402
R882	Resistor	10K	0402
R883	Resistor	10K	0402
R884	Resistor	2K2	0402
R885	Resistor	2K2	0402
R886	Resistor	2K2	0402
R887	Resistor	56K	0402
R888	Resistor	10R	0402
R889	Resistor	0R	0402
R890	Resistor	470R	0402
R891	Resistor	8K2	0402
R892	Resistor	20K	0402
R893	Resistor	47K	0402
R900	Resistor	47K	0603
R901		NC	0603
R902	Resistor	0R	0805
R903	Resistor	68K	0603
R904	Resistor	12K	0603
R905	Resistor	390R	0603
R906	Resistor	4K7	0603
T1000	Transistor	DTC114EE	SOT-523F
T1001	Transistor	2SD1664-G	SOT-89
T1002	Transistor	2SK3078	SOT-89-M
T1003	Transistor	RD07MVS1	
T1004	Transistor	DTA114EE	SOT-523F
T202	Transistor	2SC3357(RF)	SOT-89

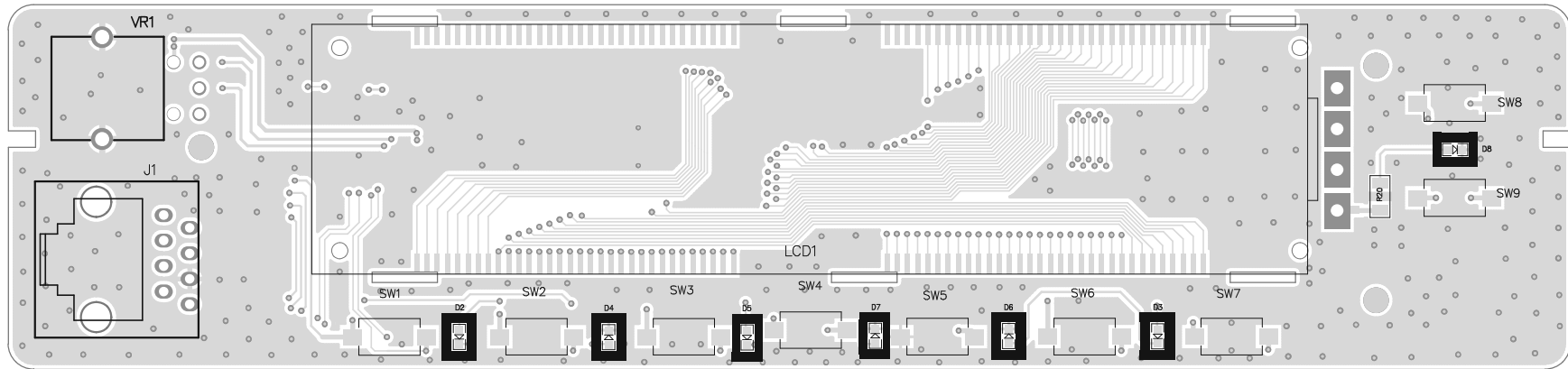
T203	Transistor	2SC3357(RF)	SOT-89
T204	Transistor	2SC3356(R24)	SOT-23
T205	Transistor	2SC3356(R25)	SOT-23
T300	Transistor	3SK318(YB-)	SOT-146
T301	Transistor	3SK318(YB-)	SOT-146
T302	Transistor	3SK318(YB-)	SOT-146
T303	Transistor	3SK318(YB-)	SOT-146
T400	Transistor	2SC4226(R24)	SOT-323
T401	Transistor	2SC4226(R24)	SOT-323
T402	Transistor	2SC4226(R24)	SOT-323
T403	Transistor	2SC4226(R24)	SOT-323
T404	Transistor	2SC4226(R24)	SOT-323
T405	Transistor	2SC4226(R24)	SOT-323
T406	Transistor	2SC4617	SOT-523F
T407	Transistor	2SK508(K52)	SOT-23-K52
T408	Transistor	2SK508(K52)	SOT-23-K52
T409	Transistor	2SC4617	SOT-523F
T500	Transistor	DTA114EE	SOT-523F
T501	Transistor	2SC4226(R24)	SOT-323
T502	Transistor	2SC2412	SOT-23
T503	Transistor	DTC114EE	SOT-523F
T504		NC	SOT-523F
T510	Transistor	DTA114EE	SOT-523F
T600	Transistor	DTC114EE	SOT-523F
T601	Transistor	2SC4617	SOT-523F
T602	Transistor	2SC4617	SOT-523F
T603	Transistor	2SC4181	SOT-323
T610	Transistor	2SC4617	SOT-523F
T700	Transistor	DTC114EE	SOT-523F
T701	Transistor	DTC114EE	SOT-523F
T702	Transistor	2SB624	SOT-23
T705	Transistor	2SB624	SOT-23
T706	Transistor	2SB624	SOT-23
T708	Transistor	DTC114EE	SOT-523F
T711	Transistor	DTC114EE	SOT-523F
T712	Transistor	2SB624	SOT-23
T713	Transistor	2SB624	SOT-23
T714	Transistor	DTC114EE	SOT-523F
T715	Transistor	UMC4	
T716	Transistor	DTA114EE	SOT-523F
T718	Transistor	2SB624	SOT-23
T719	Transistor	DTA114EE	SOT-523F
T721	Transistor	DTC114EE	SOT-523F



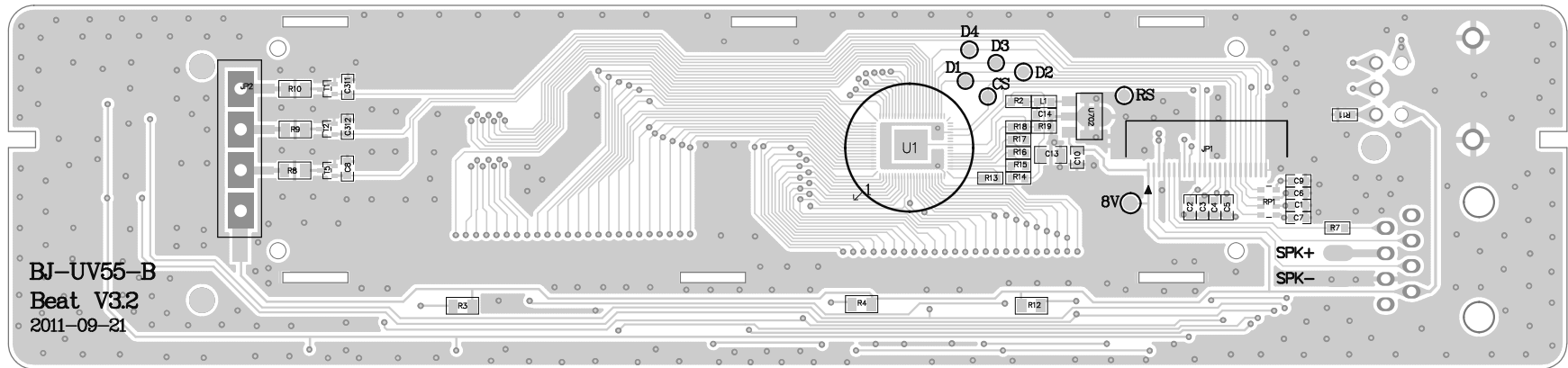
T801		NC	SOT-523F
T802		NC	SOT-523F
T804	Transistor	2SB624	SOT-23
T810	Transistor	DTC114EE	SOT-523F
T811	Transistor	2SC4617	SOT-523F
T812	Transistor	2SK1824	SOT-523F
T813	Transistor	2SC4617	SOT-523F
T814		NC	SOT-523F
T815	Transistor	2SC5066(M2)	SOT-523F
T900	Transistor	DTC114EE	SOT-523F
T901	Transistor	DTC114EE	SOT-523F
TH1005	Transistor	RD70HVF1	
U1000	IC	NJM2904V	SSOP8-P-225-0.65B
U400	IC	15U36	SSOP20-P-225-0.65B
U500	IC	TA31136	SSOP16-P-225-0.65B
U600	IC	LM4558	SOP8
U701	IC	7808	TO-220H
U702	IC	78L05	SOT-89-U
U703	IC	KIA378R08PI	TO-220-4
U704	IC	78L05	SOT-89-U
U800	IC	24C64	SOP8
U801	IC	AP88P368	
U810	IC	88L70	SSOP20-P-225-0.65B
U811	IC	RDA5802E	
U900	IC	LA4600	
VR400	Trimming POT.	50K/KT	
VR600	Trimming POT.	50K/KT	
X810	Crystal	3.579545MHZ	
ZD1000	voltage regulator tube	8V	

# PC BOARD

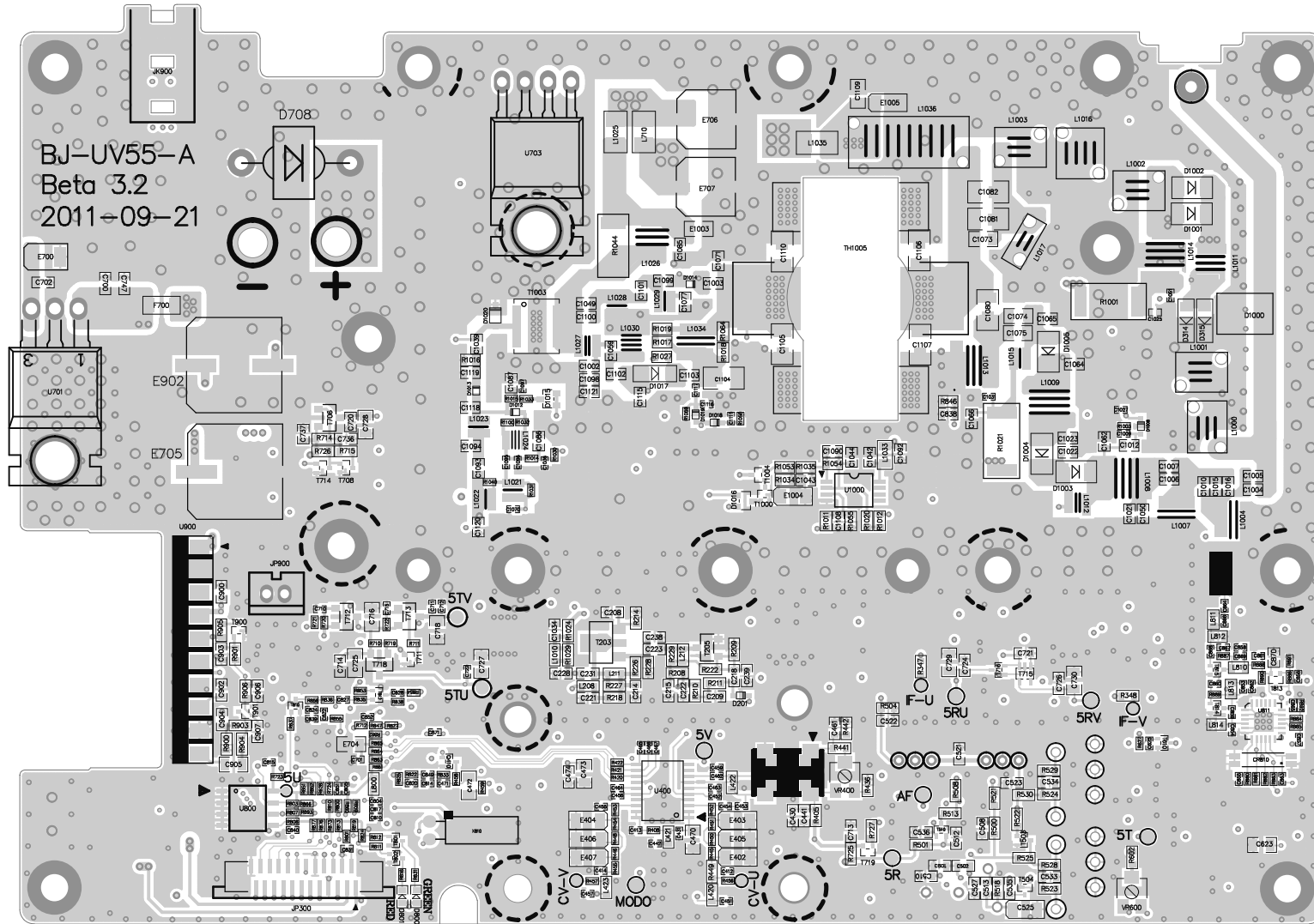
DISPLAY UNIT Component side view:



DISPLAY UNIT Foil side view:



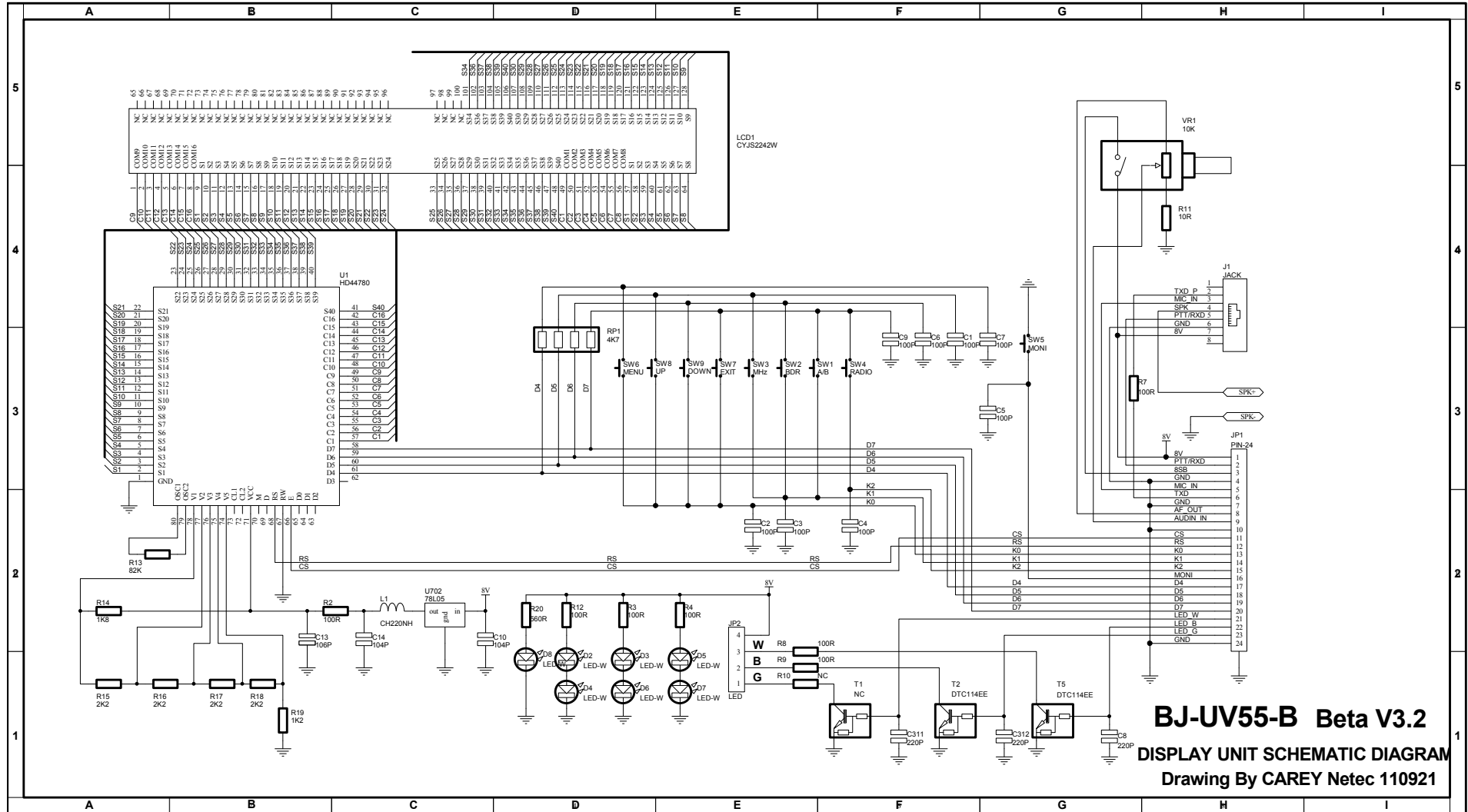
TX-RX UNIT Component side view:



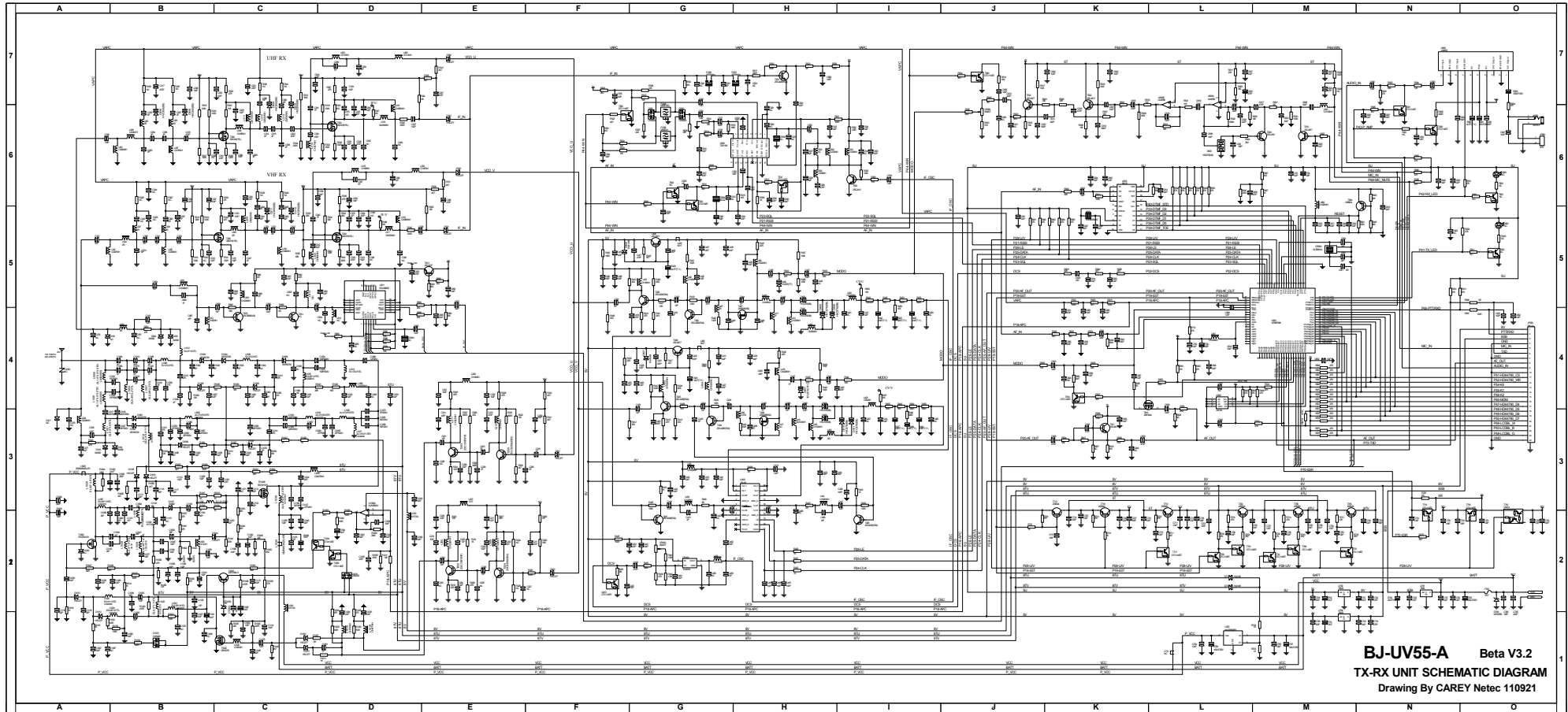


# SCHEMATIC DIAGRAM

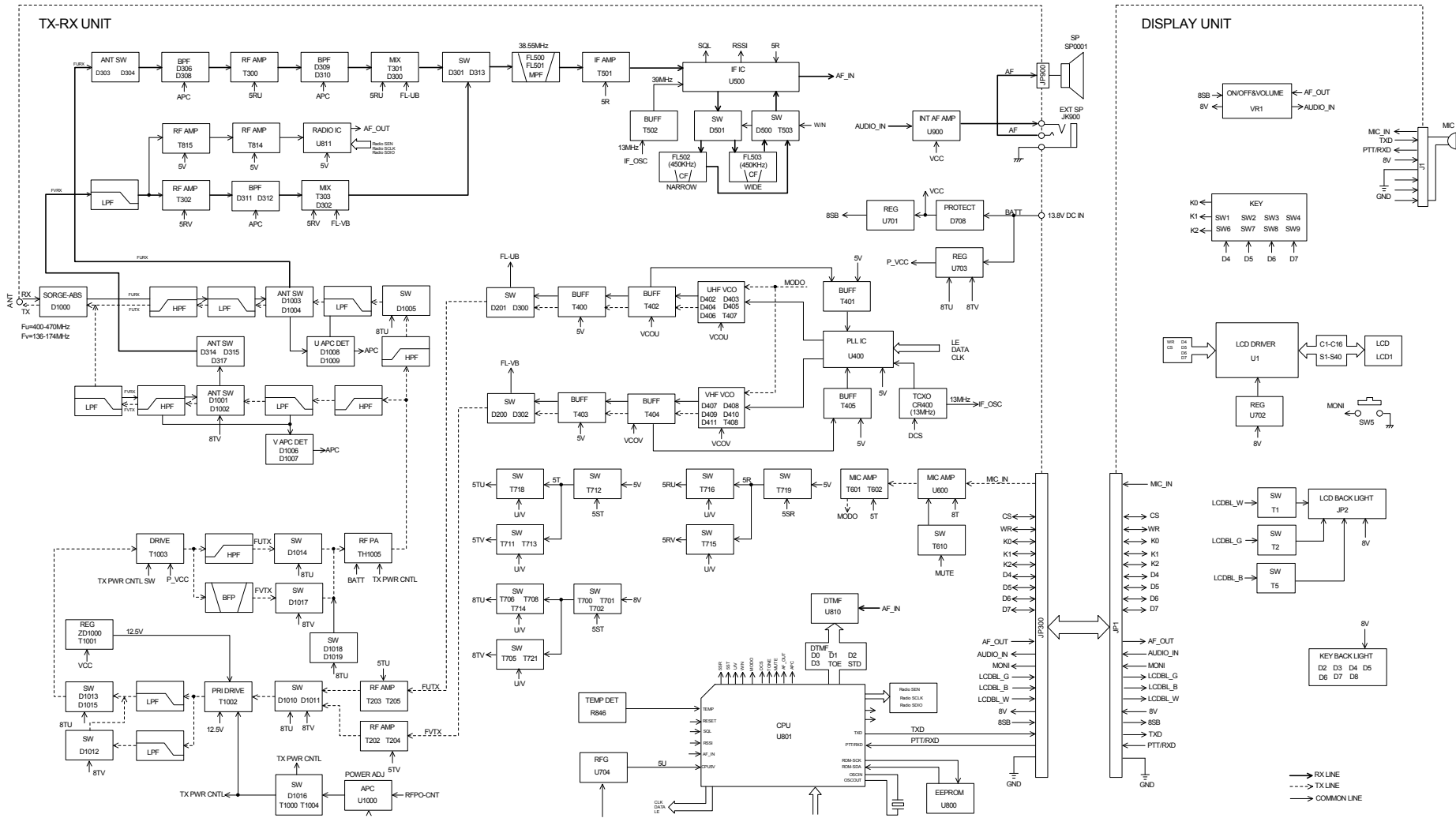
## DISPLAY UNIT:



# TX-RX UNIT:



# BLOCK DIAGRAM



## SPECIFICATION

Frequency range	FM: 87 – 108 MHZ (RX) VHF: 144 – 146 MHZ (RX/TX) UHF0: 430 – 440 MHZ (RX/TX)
Channels	128
Working mode	Co-channel or Dis-channel simplex
Working temperature	-20°C ~ +60°C
Operating voltage	13.8V DC ±15%
Modulation	FM (F3E)
Power output	15W(Low) / 40W(High)
Maximum frequency deviation	≤ ±5KHz
Spurious radiation	< -60dB
Frequency stability	±2.5ppm
Receiving sensitivity	< 0.18 μV
Audio output power	≥ 400mW
Transmitting current	3A/6A
Standby current	220mA
Weight	<b>About 1.2kg</b>
Dimension	<b>160x43x160mm</b> (projection not include)

Note: The above specifications subject to change without notice.